

### ABSTRACT OF THE DISCLOSURE

A transmit channel ( $g_{t1}$ ,  $h$ ,  $g_{r2}$ ) through which a first wireless communication transceiver is to transmit to a second wireless communication transceiver can be estimated using information indicative of a relationship between the transmit channel and a receive  
5 channel ( $g_{t2}$ ,  $h$ ,  $g_{r1}$ ) through which the first wireless communication transceiver receives communications from the second wireless communication transceiver. The relationship information (35) is combined (37) with further information (31) to produce an estimate of the transmit channel.